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OCINEBRA INTERFOSSA.

O. t. satis elongata, purpureo-fuscâ; anfr. nucleosis ii., lævibus, elongatis; anfr. normalibus v. convexis, suturis valde impressis; costis radiantibus subvaricosis circ. xi., et spiralibus subæquantibus, quarum iii.-v. in spirâ monstrantur, decussatâ; interstitiis altis, quadratis, laminulis incrementi, et interdum costulis spiralibus obtusis intercalantibus, sæpe ornatis; aperturâ ovatâ, labro (t. adultâ) intus dentato; canali satis longâ, sæpius clausâ. Long. .85, long. spir. .4, lat. .45, div. 60°.

Hab.—Neeah Bay, *Swan*: Vancouver, *Lord*, (named *Fusus orpheus*, as of Gld. in Br. Mus.)

Variat.: t. *atropurpureâ*; costis spiralibus distantibus, in spirâ duabus, foveis majoribus. Variat quoque t. albido zonatâ.

? CHRYSODOMUS RECTIROSTRIS, n. s.

?Chr. t. parvâ, albida, carneo maculatâ, gracili epidermide tenui, corneâ indutâ; anfr. nucleosis? . . . [decollatis;] anfr. normalibus vi. planatis, suturis parum distinctis; adolescente, costulis radiantibus circiter xiv. latis, haud expressis, adultâ obsoletis; lineis spiralibus haud conspicuis; aperturâ elongato-pyriformi, in canalem valde productum, apertum, rectum, subito attenuatâ; labro acuto, parum arcuato, haud sinuato; labio inconspicuo. Long. .88, long. spir. .43, lat. .32, div. 33°.

Hab.—In sinu Pugetiano, specimen unicum legit Kennerley.

Aspectu Belam, formâ Perronam, nisi labro haud sinuato, commemorat: characteribus plurimis subgeneri *Siphoni* convenit.

Synopsis of the Genus POMOXYS, Raf.

BY THEODORE GILL.

In order to dissipate part of the confusion into which the nomenclature of this genus has fallen, and to make known several new species, the present article is submitted.

Genus POMOXYS, (Raf.)

- I. Caudal peduncle with its height in front (.14) greater than its length (.11—.12); anal fin extending backwards nearly to base of caudal. P. brevicauda.
- II. Caudal peduncle longer (.13—.15) than high (.11—.13); anal fin not passing beyond the second third of peduncle.
 - Height exceeding three-tenths (.31) of length; head less than three-tenths (.24). P. intermedius.
 - Height less than averaging three-tenths (.29) of length, and scarcely longer than head.
 - Caudal peduncle slender (.15 long, .11½ high).
 - First dorsal spine less than half (.02½) an eye's diameter. P. storerius.
 - Caudal peduncle stout, little longer than high (.13½ long, .13 high). First dorsal spine equal to two-thirds (.04½) of an eye's diameter. P. protacanthus.

POMOXYS BREVICAUDA, Gill.

D. VI. 15. A. VI. 17. P. 15.

6

Scales (12—29—) 42 —,*

14

* The twelfth and twenty-ninth scales of the lateral line, respectively, correspond with the vertical of the anterior and posterior ends of the dorsal fin. The total number of scales through which the lateral line runs, exclusive of those on the caudal fin, is forty-two. At the region of greatest height, there are six rows above and fourteen below the lateral line.

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This species is readily distinguished by its abbreviated caudal peduncle and the consequent extension of the anal fin backwards nearly to its end. The back is also considerably more gibbous and decurved than that of any congener.

4564. North Grand River, Livingston Co., Mo. Dr. Hoy.

POMOXYS INTERMEDIUS Gill.

D. VI. 15. A. VI. 17.

Scales (12—31—) 45 $\frac{6}{14}$.

This species distinguished by its comparatively longer caudal peduncle and the height of the body, as well as by the smaller size of the scales.

POMOXYS STORERIUS Gill.

?*Pomoxis annularis* Raf. ? Ag.

Cichla storeria Kirtland, MSS.

Centrarchus hexacanthus Cuv. et Val., fide Storer (nec Cuv. et Val.)

Pomoxis nitidus Girard.

Centrarchus nitidus Günther.

D. VI. 15. A. VI. 17. P. 15.

Scales (14—30—) 43 $\frac{6}{14}$.

The *Pomoxys storerius* is remarkable among all its known congeners on account of the slender caudal peduncle.

The species has been quite unfortunate in its nomenclature. It is possible that it is the species described and figured (!) by Rafinesque, but it would be an act of injustice to any other naturalist to suppose that his figure could so disagree with nature as does that of Rafinesque with the species in question. Agassiz has adopted Rafinesque's name for a species found in the Tennessee River,* and, while he has remarked that it does not have the caudal ring mentioned by that author, has not alluded to any other disagreement with the fish of Rafinesque; the normal inaccuracy of that man is, however, so well known, that Agassiz has doubtless considered it superfluous to allude to any such discrepancies, and, consequently nothing may be predicated from his silence on that subject.

The species was first intelligibly noticed by Dr. Kirtland; in the "Report on the Zoology of Ohio," p. 191, he introduced it under the name *Cichla Storeria*. Being subsequently informed by Dr. Storer "that Cuvier had previously described it in the third volume of his "Histoire Naturelle des Poissons," from specimens taken by Lesneur in the river Wabash," he referred it to the latter species, called *Centrarchus hexacanthus* Val. The fishes of Kirtland and the French naturalists, not only belong to different species, but even to different genera. The name *Cichla Storeria* must therefore be accepted as the specific appellation of the species described by Kirtland, if Rafinesque's is deemed unworthy of adoption.

Subsequently, the species was described and figured by Girard under the new name of *Pomoxis nitida*, while the name of Kirtland was retained as a synonym of the *Centrarchus hexacanthus*, which was erroneously called *Pomoxis sparoides*, and the name of Rafinesque was preserved for a third nominal species.

* Agassiz remarks, that the species of the Tennessee River "agrees fully with the description given by Rafinesque of his *Pomoxis annularis*, with the sole exception of a golden ring at the base of the tail, which may be faded in the specimens sent by Dr. Newman from Huntsville;" but this agreement surely can scarcely extend to the figure, which remains unnoticed by Agassiz.

POMOXYS PROTACANTHUS Gill.

D. VI. 15. A. VI. 17.

6

Scales (13—30—) 43 —.

14

The *Pomoxys protacanthus* may be at once distinguished among the other species here enumerated by the comparative elongation of the anterior dorsal and anal spines. A single specimen (4565), from Tarboro, North Carolina, is in the Smithsonian collection, and has no opercular spot. The absence of this latter furnishes another specific character, unless it has been obliterated by the alcohol.

The following table gives the relative proportions of the several species :

	4564	4563	4565
Extreme length.....	8 $\frac{1}{2}$	6 $\frac{3}{4}$	6 $\frac{1}{2}$ 6
Body—Greatest height.....	35	31	29
Height of tail behind anal fin.....	14	12	11 $\frac{1}{2}$ 13
Least height of tail.....	11 $\frac{1}{2}$	10	9 $\frac{1}{2}$ 10
Length of tail.....	11 $\frac{1}{2}$	13	15
Head—Greatest length	31	29	29
Height at pupil.....	15 $\frac{1}{2}$	14	14
Length of snout.....	6 $\frac{1}{2}$	6	6
Orbit—Diameter.....	5 $\frac{1}{2}$	6	6
Dorsal—Length of base	27	25	24
Height at first spine.....	3	2 $\frac{1}{2}$	2 $\frac{1}{2}$
Height at last spine.....	11 $\frac{1}{2}$	13 $\frac{1}{2}$	14
Height at longest ray.....	16	16	16
Anal—Height at first spine	4	2 $\frac{1}{2}$	2 $\frac{1}{2}$
Height at last spine	9 $\frac{1}{2}$	12	11
Caudal—Length of middle rays.....	17	18	17
Length of external rays.....	21	22	22
Pectoral—Length.....	16 $\frac{1}{2}$	17	17
Ventral—Length	15	15	15

On the Genus CAULOLATILUS.

BY THEODORE GILL.

CAULOLATILUS Gill.

=*Caulolatilus* Gill, Proc. Academy of Natural Sciences, of Philadelphia, 1862, p. 340.

Dekaya Cooper, Proc. California Academy of Natural Sciences, iii. p. 70, 1864. *Latilus* sp. Cuv. et Val.

Body much compressed, elongated, with the height nearly uniform to the anus; thence gradually decreasing to the caudal peduncle, which is moderately narrowed.

Scales small, oblong, with a rather large central, minutely granular and estriate area, from the posterior portion of which the rhipidal ridges radiate; and with a wide muricated posterior border; the exposed surfaces are vertical, especially near the head.

Lateral line indistinct, parallel with the back; median on the caudal peduncle.

Head compressed, scarcely oblong, with the profile boldly decurved, the forehead flattened. Forehead behind cheeks and opercula, except interoperculum, covered with ctenoid scales like those of the body. *Eyes* subcircular, large. *Preorbital* bone elongated rhomboid, with the height less than the di-

[April,